

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): ~~An set of RNA sequences shown thereafter, or any fragment from the sequences, which~~ that demonstrates anti-HIV infection activity and be is employed in prevention and treatment of AIDS, wherein said RNA is selected from the group consisting of:

a single stranded RNA comprising SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a single stranded RNA comprising a fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a double stranded RNA derived by annealing of SEQ ID NO:1 and the complementary sequence thereof, SEQ ID NO:2 and the complementary sequence thereof, or SEQ ID NO:3 and the complementary sequence thereof; and

a double stranded RNA derived by annealing of a fragment of SEQ ID NO:1 and the complementary sequence thereof, a fragment of SEQ ID NO:2 and the complementary sequence thereof, or a fragment of SEQ ID NO:3 and the complementary sequence thereof. ~~The nucleotides include single strand RNA, any fragment derived from the sequences, or double strand RNA derived by annealing of the sequences with its complements sequences.~~

(1) — aucaaugaggaageucegagaugg (SEQ ID NO:1);

(2) — ~~gggaagugacauageaggaacuacuag~~ (SEQ ID NO:2);

(3) — ~~uaaauaaaaauaguaagauguauageccu~~ (SEQ ID NO:3);

wherein said fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3 is selected from the group consisting of

a 19 nt fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a 20 nt fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a 21 nt fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a 22 nt fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a 23 nt fragment of SEQ ID NO:1, SEQ ID NO:2 or SEQ ID NO:3;

a 24 nt fragment of SEQ ID NO:2 or SEQ ID NO:3;

a 25 nt fragment of SEQ ID NO:2 or SEQ ID NO:3;

a 26 nt fragment of SEQ ID NO:2 or SEQ ID NO:3;

a 27 nt fragment of SEQ ID NO:3;

a 28 nt fragment of SEQ ID NO:3;

wherein said 19 nt fragment of SEQ ID NO:1 is selected from the group consisting of ucaaugaggaagcugcaga, caaugaggaagcugcagaa, aaugaggaagcugcagaa, augaggaagcugcagaaug and ugaggaagcugcagaaugg; and

wherein said 19 nt fragment of SEQ ID NO:2 is selected from the group consisting of ggaagugacauagcaggaa, gaagugacauagcaggaac, aagugacauagcaggaacu, agugacauagcaggaacua, gugacauagcaggaacuac, ugacauagcaggaacuacu, gacauagcaggaacuacua and acauagcaggaacuacuag.

(4) — ~~uaugggguaaccugugugga~~ (SEQ ID NO:4);

(5) — ~~gccaaaucccauacauuauugugc~~ (SEQ ID NO:5);

(6) — ~~uuaaauggcagucuagecagaa~~ (SEQ ID NO:6);

(7) — ~~accacacacaaggeuacuucccugau~~ (SEQ ID NO:7);

(8) — ~~acagecgecuageauuucauac~~ (SEQ ID NO:8);

(9) — ~~ggauggugcuucaageuaguaccaguu~~ (SEQ ID NO:9)

2. (currently amended): The RNA sequences in accordance with claim 1, wherein said RNA is ~~or their fragments were modified at their~~ its 5' end or 3' end by adding two uracil nucleotides, which showed anti-HIV activity or be employed in HIV prevention and treatment.

3. (currently amended): A set of~~The~~ RNA sequences ~~which showed anti-HIV activity or be employed in AIDS prevention and treatment~~ of claim 1, wherein said RNA is a Hairpin RNA consisting of a stem part and a loop part,

wherein said stem part is a double stranded RNA as claimed in claim 1, which is derived
by annealing of

SEQ ID NO:1 and the complementary sequence thereof,

SEQ ID NO:2 and the complementary sequence thereof,

SEQ ID NO:3 and the complementary sequence thereof,

the fragment of SEQ ID NO:1 and the complementary sequence thereof,

the fragment of SEQ ID NO:2 and the complementary sequence thereof,

or the fragment of SEQ ID NO:3 and the complementary sequence thereof,

and wherein said loop is a non-complementary spacer, which were characterized by:

~~Hairpin RNA composed of RNA as declared in claim 1 and its complement sequence spaced by a~~
~~non-related spacer.~~

4. (currently amended): A set of single-stranded DNA or double-stranded DNA that
demonstrates sequences which showed anti-HIV infection activity and is or be employed in AIDS
prevention and treatment of AIDS, wherein, which were characterized by:

1) said single-stranded DNA or one strand of said double-stranded DNA corresponds to
the RNA of claim 1, or its complementary sequence; or

2) said single-stranded DNA or one strand of said double-stranded DNA corresponds to the RNA of claim 2, or its complementary sequence; or

3) said single-stranded DNA or one strand of said double-stranded DNA corresponds to the RNA in accordance with claim 3 or its complementary sequence~~1) DNA sequences or their fragments, which corresponded to the RNA sequences or their fragments as declared in Claim 1 or corresponded to the double strand RNA in accordance with claim 1 and its complement sequence or fragments; or~~

~~2) DNA sequences or their fragments corresponded to RNA sequences or their fragments as declared in claim 1, which were modified by other nucleotides at their 5', 3', or both. Or,~~

~~3) A single strand or double strand DNA sequence, which correspond to the RNA sequence as described in Claim 3.~~

5. (currently amended): An expression vector that demonstrates anti-HIV against HIV-infection activity and is or be employed in treatment or prevention and treatment of AIDS, wherein said vector which characterized by: Vectors contains any of the RNA of claims 1-3 or the DNA of claim 4 or DNA sequences or their fragment described Claim 1 to 4. The term Vector includes RNA vectors and DNA vectors.

6. (currently amended): ~~One kind of~~ A liposome that demonstrates anti-HIV against HIV-infection activity and is ~~be employed in treatment or prevention and treatment of AIDS,~~
wherein said liposome coats any of the RNA of claims 1-3, or the DNA of claim 4~~which~~
~~characterized by: DNA, RNA or their fragments as in claim 1 to 4, or Vectors as described in~~
~~Claim 5, were coated in the liposome.~~

7. (currently amended): ~~A protocol against HIV infection or be employed in~~ method
for the prevention or treatment of HIV infection or the prevention or treatment of AIDS, wherein
~~which characterized by: RNA, DNA or their fragments~~ thereof according to any of as described
~~in Claims 1 to 4, or expression vectors as described in claim 5, or liposomes as described in~~
~~claim 6, was~~ are introduced into a eukaryotic cell line, ~~animal cells or human body.~~

8. (canceled).

9. (new): A liposome that demonstrates anti-HIV infection activity and is employed
in prevention and treatment of AIDS, wherein said liposome coats the vector of Claim 5.

10. (new): A method for the prevention or treatment of HIV infection or the prevention or treatment of AIDS, wherein expression vectors according to claim 5 are introduced into a eukaryotic cell line.

11. (new): A method for the prevention or treatment of HIV infection or the prevention or treatment of AIDS, wherein liposomes according to claim 6 are introduced into a eukaryotic cell line.

12. (new): A method for the prevention or treatment of HIV infection or the prevention or treatment of AIDS, wherein liposomes according to claim 9 are introduced into a eukaryotic cell line.